



Please replace the paragraph at page 10, line 3, with the following rewritten paragraph:

The present invention pertains to techniques for transmission of message fragments between Object Request Brokers operating in distributed object oriented environments. In one aspect, the techniques provide an elegant mechanism for fragmentation of messages into sub-messages. In one embodiment, a fragment-offset is provided as a means for determining the location of data bytes in sub-messages with respect to the original message that has been fragmented. During the construction and transmission of sub-messages, the fragment-offset can be updated to indicate the current offset with respect to the original message. Accordingly, in contrast to conventional techniques, a significant amount of computations or bookkeeping to track of several other variables (e.g., number of fragments constructed, total number of bytes constructed, etc.) are not required. As will be appreciated, the headers of the sub-messages need not be of the same size. Similarly, the data portions of the sub-messages can vary in size. As a result, the present invention provides an elegant means to determine the location of bytes in sub-messages with respect to the original message that has been fragmented, without requiring the size of the data fragments and header fragments to be constant.

Please replace the paragraph at page 10, line 18, with the following rewritten paragraph:

Fig. 2 depicts a sequence of sub-messages 102-110 constructed from a message 112 that is to be transmitted between Object Request Brokers in accordance with one embodiment of the invention. The message 112 ("original message") includes a header H and data that can be represented as data segments D1-D5. The corresponding sub-messages 102-110 respectively include headers h1-h4 and data portions D1-D5. Thus, the corresponding sub-messages 102-110 represent the original message 112 and collectively include its data. In the described embodiment, header H of the original message 112 is copied as the header H of the first sub-message in the sequence, the sub-message 102. It should be noted that headers [[h2]] h1-h4 do not need to be the same size. Accordingly, the size of a header for a sub-message can

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vary from the size of the header of another sub-message, as well as varying from the size of the header H of the original message 112. Similarly, the data D1-D5 can vary in size.

Please replace the paragraph at page 10, line 29, with the following rewritten paragraph:

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As noted in the background, in order to construct sub-messages 102-110 from the message 112, it may be necessary to know the corresponding position of a given data byte in one of the sub-messages 102-110 with respect to its position in the original message 112. For example, it may be necessary to know the corresponding location of given a given Byte I of data portion D3 with respect to its location in the original 112 message (i.e., know what byte number Byte I is in the original message). One reason why it may be necessary to know the location of data byte in a fragmented message with respect to the original message is that there may be a reference to data, rather than another copy of data. For example, Byte I may be pointing to data segment D1 to represent the data in the original message. To achieve this, a fragment-offset 114 can be provided. As will be described below, the fragment-offset 114 can be used to determine the location of data bytes in the sub-messages 102-110 with respect to their position in the original message. For example, when the sub-message 106 is being constructed, the fragment-offset 114 can indicate the location of the first byte of the data portion D3 in the original message 112. Thus, the byte number of the byte I can be easily determined based on the location of the first byte of the data portion D3.